## ABSTRACT

A new enzymatic process for preparing 1,2-diacylated phospholipids using an enzyme preparation possessing phospholipase activity towards acylation at the *sn*-1 and *sn*-2 sites in a microaqueous reaction system. More particularly, the 1,2-diacyl-phospholipids produced according to the esterification/transesterification process are obtainable in high yield and purity and carry identical desired carboxylic acid, preferably fatty acid, acyl groups at the *sn*-1 and *sn*-2 positions. The process involves esterification/transesterification (acylation) of a glycerophospholipid, preferably glycerophosphoryl choline (GPC) with a desired carboxylic acid, preferably fatty acid, or their derivatives in the presence of the above mentioned appropriate enzyme preparation. The process of the invention further relates to a process for the production of 1-acyl-2-lyso-glycerophospholipid, preferably 2-lyso-PC by reacting glycerophospholipid, preferably glycerophosphoryl choline (GPC) with a desired carboxylic acid, preferably fatty acid, or their derivatives in the presence of a sn-1 specific phospholipase ($PLA_1$ or $PLA_{1,2}$) and a solvent, in a microaqueous medium.